

**PREFILED TESTIMONY  
EMERSON J. MARVEL  
ON BEHALF OF THE CITY OF WOONSOCKET**

Q. What is your name and business address?

**A.** Emerson James Marvel, 169 Main Street, Woonsocket, RI,  
02895

Q. By whom are you employed and in what capacity?

**A.** I am the Water Division Superintendent for the City of Woonsocket, Department of Public Works. I work under the administrative supervision of the Director of Public Works. I am responsible for the operations of the municipal water system.

Q. Please describe your qualification and experience.

A. I have worked in Public Water Supply for the past 27 years. I have earned a Bachelor of Science Degree from Marquette University and a Master of Business Administration Degree from Providence College.

In 1986 I was promoted to Superintendent of the Water Division in Woonsocket. I am responsible for operations of the Water Division. This includes source of supply, treatment, transmission and distribution systems, pumping, metering, billing, and customer service.

1   **Q.     Have you previously testified before state regulatory**  
2       **commissions or courts on rate related matters?**

3   **A.**   Yes.   I testified before this commission under the  
4       City's rate filings in 1986,1993 and 1999. In addition,  
5       in 1998 I was qualified as an expert on Public Water  
6       Supply in Rhode Island Superior Court.

7  
8   **Q.     Do you belong to any professional organizations or**  
9       **committees?**

10  **A.**   I am a member of the American Water Works Association  
11       (AWWA), New England Water Works Association (NEWWA) and  
12       Rhode Island Water Works Association (RIWWA).

13       I am a past president of RIWWA. During my eight years  
14       on the executive committee, I have testified on behalf  
15       of public water suppliers before regulatory agencies  
16       and committees in the Rhode Island General Assembly.

17       I am currently President Elect of the New England Water  
18       Works Association, a section of The American Water  
19       Works Association. I have also chaired various  
20       committees for NEWWA.

21       In addition to the above, I have served/serve as a  
22       member of the following groups:

- 23       • Board of Certification of Drinking Water Operators  
24       • Drought Planning Task Force

- 1 • Water Supply Policies for Rhode Island Advisory
- 2 Committee, State Guide Plan Element 721 (Chair)
- 3 • Stakeholders Committee on Water Supply Management
- 4 • State of Rhode Island Water Supply Emergency
- 5 Response Committee
- 6 • Public Drinking Water Supply Advisory Council
- 7 • Blue Ribbon Committee on the Pawtucket Water Crisis

8

9 **Q. Do you hold any professional Certifications or**

10 **Licenses?**

11 **A.** Yes, I have a Class 4 Drinking Water Distribution

12 Operator Certification and a Class 4 Drinking Water

13 Treatment Operator Certification.

14

15 **Q. Have you received any professional awards?**

16 **A.** Yes I have received the following awards:

17 **Operator's Meritorious Service Award (1993)**

18 Awarded by the American Water Works Association

19 for consistent and outstanding service in

20 providing a quality water supply to the public.

21 **Water Works Leadership Award (1997)** Awarded by the

22 New England Water Works Association, for

1                   contributions to the advancement of excellence in  
2                   the water works profession.

3

4   **Q.   What is your role in this proceeding?**

5   **A.**   My role in this proceeding is to discuss general  
6           information on the Water Division including staffing,  
7           and capital needs.

8

9   **Q.   Please describe the proposed increases in Permanent**  
10           **Services.**

11   **A.**   With the exception of the Superintendent, all WWD  
12           employees are members of R.I. Council 94, AFSCME Local  
13           670 or Local 3851. With that exception, all increases  
14           included in this docket are contractual increases in  
15           salary, shift differential, sick leave buy back and  
16           longevity bonus. In addition there are contractual  
17           increases in clothing and footwear allowances.

18

19   **Q.   Have you included an increase in the number of**  
20           **employees?**

21   **A.**   No.

22

23   **Q.   Please explain the increase in Sewer Assessments.**

24   **A.**   The City lost two of the largest contributors to the  
25           regional wastewater system. Ocean State Finishing, and

1        Seville Dye all closed within the last six months. As a  
2        result of their closure, the city had to recalculate  
3        the sewer assessment to recover the lost revenue. The  
4        increased expense in this filing is a result of this  
5        increased assessment and increases in the wastewater  
6        system costs.

7  
8        **Q.    Has the loss of these commercial customers had other**  
9        **impacts on WWD?**

10      **A.**    Yes. We have lost these largest customers as well. The  
11      details of the consumption loss can be found in the  
12      Woodcock testimony.

13  
14      **Q.    Why has there been a dramatic increase in the Roads and**  
15      **Walks expense?**

16      **A.**    Roads and Walks expense is the cost associated with the  
17      repair of roads and sidewalks caused by WWD  
18      construction and operations. These costs typically are  
19      for repairs from excavations, however, they can also  
20      include repairs to roads undermined by water main  
21      breaks. In fiscal year 2003 the City instituted a full  
22      width-paving requirement for patches in roads that have  
23      been resurfaced within five years. This paving  
24      requirement has already resulted in significant  
25      increases in paving costs this year.

1     **Q.   Please explain the increase in property taxes over the**  
2     **prior year.**

3     **A.**   Certainly. The increased property taxes are a result of  
4     the completion of the Crook Fall Brook Pipeline  
5     Project. The completion of the blending chamber has  
6     created a taxable structure and thus the increase in  
7     these taxes.

8

9     **Q.   Why has the Debt Service account decreased when**  
10    **additional debt service was authorized in Docket D-02-**  
11    **31?**

12    **A.**   The revenue anticipation notes funded in Docket 2094  
13    have been paid in full. The first payment on the State  
14    Revolving Loan is projected to be due in September  
15    2003. The initial payments in September 2003 and March  
16    2004 (in the rate year) are estimated to be  
17    approximately \$150,000, depending on how quickly we  
18    draw the loan down. This results in a small decrease  
19    to the restricted amount. We expect to file for an  
20    additional rate adjustment within a year to fund the  
21    full amount of these bonds. WWD is proposing using the  
22    bond proceeds for infrastructure improvements in  
23    accordance with its IFR Plan.

24

1     **Q.   Has WWD complied with all prior Commission orders?**

2     **A.**   Yes. Since 1993 WWD has maintained restricted receipt  
3           accounts in compliance Commission orders. WWD is  
4           current with all annual, semiannual, and periodic  
5           reports.

6

7     **Q.   Do you have a recommendation in this docket?**

8     **A.**   Yes. I recommend the rates be approved as filed.

9

10    **Q.   Please describe your prefiled schedules.**

11    **A.**   The following schedules were prepared for compliance  
12           with RIGL 39-3-12.1 and Section 2.10 (d) of the Rhode  
13           Island Public Utilities Commission Rules of Practice  
14           and Procedure. They are:

- 15           • Schedule A Information required of Water  
16           Utilities. RIGL 39-3-12.1
- 17           • Schedule B Comparative Statement of Revenues and  
18           Expenditures for Fiscal 2000, 2001 and 2002. RIPUC  
19           2.10(d) (3)
- 20           • Schedule C Debt Service Schedules. RIPUC  
21           2.10(d) (5)
- 22           • Schedule D Test Year Balance Sheet. RIPUC  
23           2.10(d) (1)
- 24           • Schedule E Compliance Summary with Prior  
25           Commission Orders. RIPUC 2.10(d) (8)

1           • Schedule F Accounting Summary of Restricted  
2           Receipt Accounts. RIPUC 2.10(d) (9)

3           • Schedule G Three Year Property Tax Summary  
4

5   **Q. Does this conclude your Testimony?**

6   A. Yes  
7  
8



1

2

**INFORMATION REQUIRED BY RIGL 39-3-12.1**

**1. STATUS OF PHYSICAL PLANT**

**A. Source of Supply**

1. Crookfall Brook Watershed: This source consists of Reservoirs 1 and 3 in the towns of Lincoln, N. Smithfield and Smithfield. The safe yield of this system based on a 95 % reliability is 3.5 MGD.

2. Harris Pond Watershed: This source of supply is an impoundment of the Mill River in Blackstone and Bellingham, MA. The safe yield of this source based on a 95% reliability is 5.0 MGD.

**B. Treatment**

The Charles G. Hammann Memorial Treatment Plant has a maximum capacity of 13.25 MGD. The facility uses conventional treatment consisting of coagulation, flocculation, sedimentation, granular activated carbon filtration, disinfection, fluoridation and corrosion control. Other system components of the facility are:

- 2 0.5 MG Steel Clearwells
- 1 0.4 MG Steel Washwater Storage Tank
- 1 3500 gpm Main Distribution Pumps
- 1 4000 gpm Diesel Pump
- 1 125 KVA Emergency Power Generator

**C. Distribution and Storage**

The distribution system consists of approximately 125 miles of pipe, 2843 valves, 1500 hydrants, eight storage

tanks and four pump stations.

## **2. MAINTENANCE POLICY**

It is and has been the policy of the City of Woonsocket Water Division to maintain its system in proper operating condition in accordance with accepted standards. All damaged items are repaired as quickly as possible. All emergency items including water breaks are repaired immediately regardless of time of day.

<u>SIZE (IN.)</u>	<u>1989 (FEET)</u>	<u>2002 (FEET)</u>	<u>INCREASE (FEET)</u>
1	1086	1086	
1.25	239	239	
1.5	768	768	
2	3926	3926	
2.5	533	533	
3	93	93	
4	12282	11958	(324)
6	136709	135287	(1422)
8	314307	319117	4810
10	11918	11918	
12	114021	117641	3620
14	10437	10437	
16	1938	2418	480
18	18526	18526	
20	16741	17581	840
24		14460	14460
30	10909	10909	
<hr/>			
Totals	654433	676897	22464

The last distribution line installed in the fiscal year ending June 30,2002. 1,250 feet of 12 inch ductile iron pipe was installed in Harris Avenue

### **3. WATER TREATMENT CHEMICALS**

CHEMICAL USE AND COST  
SIX-MONTH TOTAL (SEPT. 2002 to FEB. 2003)

<u>Chemical</u>	<u>Total</u>	<u>Unit Cost</u>	<u>Total Cost</u>
Alum	188,018	\$269.17/T	25304.34
Lime	90,420	179.00/T	8092.59
Fluoride	10,486	764.40/T	4007.56
Corrosion Inhibitor	23,467	1063.20/T	12475.26
Chlorine	8,408	1300.00/T	5465.20
Polymer	2,499	2840.00/T	3548.35
Sodium Hypochlorite	4,937 gal	1.15/gal	<u>4577.35</u>
Total			\$64570.65

Aluminum Sulfate (Alum):

Aluminum sulfate is added to the raw water to cause coagulation and flocculation to occur which removes some of the color and turbidity naturally found in surface water supplies.

Hydrated Lime:

Hydrated lime is added to raw water as needed for ph adjustment for optimum coagulation and flocculation. It is also added to the finished water to increase ph and total alkalinity for corrosion control.

Sodium Silicofluoride:

Fluoride is added to the finished water to reduce the incidence of dental cavities.

Corrosion Inhibitor:

The chemical added to the finished water to aid in corrosion control is a blend of poly and orthophosphates. This chemical acts as a sequestering agent and also can form an insoluble protective film on the surface of the pipe.

Chlorine:

Chlorine is added the finished water for disinfection purposes. It is also added to the raw water during the warmer months for pretreatment disinfection.

Polymer:

Polymer is added to raw water to enhance the sedimentation process.

Sodium Hypochlorite:

Sodium hypochlorite is added to the water pumped from Harris Pond for disinfection purposes.

GENERAL COMMENTS

The amounts of chemicals added are seasonally dependent as well as weather dependent. As flows increase during the warmer months, more chemical must be added to maintain the optimum dosage for that chemical. The dosages for some chemicals (i.e. fluoride and corrosion inhibitor) are fixed. Other chemicals (i.e. alum, polymer, lime and chlorine) are dosed in varying amounts depending on raw water quality and flow. Woonsocket uses a surface water supply. The terminal reservoir is fed by Crookfall Brook, which is greatly influenced by rainfall events. During periods of heavy precipitation the raw water quality deteriorates dramatically necessitating the addition of more alum, polymer, lime and chlorine to provide water that meets all federal and state regulations.

**4. Policy Relating to Expansion and Renovation**

It is and has been the policy of the City of Woonsocket to continue to provide quality service to all existing customers. Systems expansion within existing service areas where there is sufficient existing utility in place to support the expansion, is encouraged.

If there is sufficient utility, the City requires the individuals seeding the service to install contributed capital.

Amounts expended during the prior year and the proposed improvements are included in the annual reports and as part of the capital improvements program contained within this filing.

- a. Amount spent in preceding year \$ 735,179
- b. Amount expected to be spent next year \$6,125,000.

Woonsocket Water  
Division  
Balance Sheet As Of  
June 30, 2002

	<b>Water Fund</b>
<b>Assets</b>	
<b>Current Assets</b>	
Cash and cash equivalents	\$ 188,100
Investments at cost	2,998,027
<b>Accounts Receivable</b>	
Usage fees (Net of Allowance)	2,459,651
Due from other governments	-
Other	115
Due from other funds	2,544,889
<b>Total current Assets</b>	<b>8,190,782</b>
<b>Non-current assets</b>	
Property, plant and equipment	
Plant facilities and equipment in service	27,521,815
Less accumulated depletion	14,020,766
Net property, plant and equipment	13,501,049
<b>Other assets</b>	
<b>Total Assets</b>	<b>21,691,831</b>
<b>Liabilities</b>	
<b>Current liabilities</b>	
Accounts payable	272,935
Due to other funds	3,335,718
Current portion of bonds payable	456,050
Accrued compensated absences	323,537
Accrued expenses	19,358
Other liabilities	10,555
Currents portion of notes payable	400,000
<b>Total current liabilities</b>	<b>4,818,153</b>
<b>Non-current liabilities</b>	
Notes payable long term portion	-
Bonds payable long term portion	5,693,160
<b>Total non-current liabilities</b>	<b>5,693,160</b>
<b>Total liabilities</b>	<b>10,511,313</b>
<b>Net Assets</b>	
Invested in capital assets, net of related debt	8,059,560
Unrestricted	3,120,958
<b>Total Net Assets</b>	<b>11,180,518</b>

**Property Tax Expense Summary**

	<u>FY 2000</u>	<u>FY2001</u>	<u>FY2002</u>	<u>FY2003</u>
North Smithfield	\$93,232	\$94,366	\$104,145	\$129,598
Blackstone	\$16,056	\$15,976	\$9,712	\$13,911
Lincoln	\$11,207	\$12,012	\$9,652	\$9,712
Smithfield	\$10,876	\$10,876	\$13,375	\$13,781
Albion Fire Dist.	\$310	\$310	\$367	\$367
Manville Fire Dist.	\$267	\$267	\$327	\$327
<hr/>				
Total	\$131,948	\$133,807	\$137,578	\$167,696

**Compliance**

The Woonsocket Water Division is current with all Annual, Semi Annual, and Periodic reporting requirements of RIPUC Docket 2094.

The Woonsocket Water Division has funded all Restricted Accounts in accordance with the requirements of RIPUC Docket 2094.



**Cost Of Service / Operating Results For FY 2000, 2001, 2002**

<b><u>Revenues</u></b>	<b><u>FY 2000</u></b>	<b><u>FY 2001</u></b>	<b><u>FY2002</u></b>
Water Sales	\$4,723,986	\$4,705,004	\$4,480,886
Interest Income	\$147,545	\$270,194	\$238,431
Miscellaneous Income	\$12,076	\$72,164	\$64,194
Retainage on surcharge	\$31,647	\$27,870	\$26,090
Total Revenues	\$4,915,254	\$5,075,232	\$4,809,601
<b><u>Expenditures</u></b>			
Operations/Maintenance	\$387,922	\$437,573	\$371,937
Source of Supply/Purchased Water	\$2,810	\$11,187	\$7,712
Pumping Operations	\$0	\$0	\$0
Water Treatment	\$59,271	\$73,086	\$121,460
Transmission & Distribution	\$116,232	\$188,481	\$174,355
Customer Account	\$6,113	\$2,501	\$17,721
Administrative & General	\$257,775	\$372,570	\$200,205
Total Operations	\$830,123	\$1,085,398	\$893,390
Debt Service			
Funding of Restricted Account	\$919,241	\$919,241	\$919,241
Capital Expenses	\$0	\$0	\$0
(funded from operating revenue)			
Property Taxes	\$131,990	\$133,807	\$137,979
Payment/Charges From Affiliates	\$0	\$0	\$0
<u>Salaries</u>	\$1,036,171	\$1,025,134	\$1,120,114
<u>Fixed &amp; General</u>	\$1,726,889	\$1,875,913	\$1,662,610
Total Expenditures	\$4,644,414	\$5,039,493	\$4,733,334
Surplus / (Deficit) From Operations	\$270,840	\$35,739	\$76,267

**Restricted Accounts Summary for the 12 Month Period Ended: 6/30/00**

<u>Account Description</u> <u>From Docket 2904</u>	July 1	Funding	Interest	Expenses	Balance
Renewal & Replacement Funding-\$200,000	\$330,476	200,000	16,762	228,942	318,296
Chemicals Funding-\$213,884	\$318,091	286,784	20,620	110,360	515,135
Debt Service 1,158,707 Funding-\$919,241	\$1,056,953	919,241	63,668	881,155	1,158,707
Rate Case Expense Funding-\$20,000	\$150,195	10,000	8,399	1,000	167,594
Infrastructure Replacement Funding-\$650,605	\$0	650,605	0	0	650,605

**Restricted Accounts Summary for the 12 Month Period Ended: 6/30/01**

<u>Account Description</u> <u>From Docket 2904</u>	<u>July 1</u>	<u>Funding</u>	<u>Interest</u>	<u>Expenses</u>	<u>Balance</u>
Renewal & Replacement Funding-\$200,000	\$318,296	200,000	16,442	115,072	419,666
Chemicals Funding-\$213,884	\$515,135	213,884	23,723	267,143	485,599
Debt Service 1,158,707 Funding-\$919,241	\$1,158,707	864,991	10,662	1,882,017	152,343
Rate Case Expense Funding-\$20,000	\$167,594	32,270	10,111	12,579	197,396
Infrastructure Replacement Funding-\$650,605	\$650,605	650,605	33,413	381,542	953,081

**Restricted Accounts Summary for the 12 Month Period Ended: 6/30/02**

<u>Account Description</u> <u>From Docket 2904</u>	<u>July 1</u>	<u>Funding</u>	<u>Interest</u>	<u>Expenses</u>	<u>Balance</u>
Renewal & Replacement Funding-\$200,000	\$419,716	200,000	8,820	157,379	471,157
Chemicals Funding-\$213,884	\$485,567	213,884	9,680	297,577	411,554
Debt Service 1,158,707 Funding-\$919,241	\$152,343	919,241	5,058	1,053,330	23,312
Rate Case Expense Funding-\$20,000	\$197,396	20,000	4,240	17,270	204,366
Infrastructure Replacement Funding-\$650,605	\$953,081	650,605	20,300	577,800	1,046,186

**Debt Service Schedule**

Date of Issue: 09/01/97  
Interest Rate: 4.7178030%  
Funding Source: Fleet Securities

	<b><u>2.7M GO Bonds</u></b>	
	<b><u>Interest</u></b>	<b><u>Principal</u></b>
<b>FY 2000</b>	\$90,635.57	\$153,415.
	<b>Total</b>	\$244,050.57
<b>FY2001</b>	\$84,070.16	\$160,960.
	<b>Total</b>	\$245,030.16
<b>FY2002</b>	\$76,875.38	\$173,535.
	<b>Total</b>	\$250,410.38
<b>FY2003</b>	\$69,183.88	\$176,050.
	<b>Total</b>	\$245,233.88
<b>FY2004</b>	\$61,032.76	\$186,110.
	<b>Total</b>	\$247,142.76
<b>FY2005</b>	\$52,237.81	\$196,170.
	<b>Total</b>	\$248,407.81
<b>FY2006</b>	\$42,778.87	\$206,230.
	<b>Total</b>	\$249,008.87
<b>FY2007</b>	\$32,689.97	\$216,290.
	<b>Total</b>	\$248,979.97
<b>FY2008</b>	\$22,187.33	\$221,320.
	<b>Total</b>	\$243,507.33
<b>FY2009</b>	\$11,330.08	\$226,350.
	<b>Total</b>	\$237,680.08
<b>FY2010</b>	\$2,892.25	\$115,690.
	<b>Total</b>	\$118,582.25

**Debt Service Schedule**

Date of Issue: 03/01/94  
Interest Rate: 5.0593377%  
Funding Source: Fleet Securities

		<b><u>\$6.4M GO Bonds</u></b>	
		<b><u>Interest</u></b>	<b><u>Principal</u></b>
<b>FY 2000</b>		\$266,157.50	\$240,000
	<b>Total</b>	\$506,157.50	
<b>FY2001</b>		\$250,197.5	\$255,000.
	<b>Total</b>	\$505,197.50	
<b>FY2002</b>		\$239,615.	\$270,000.
	<b>Total</b>	\$509,615.	
<b>FY2003</b>		\$228,005.	\$280,000.
	<b>Total</b>	\$508,005.	
<b>FY2004</b>		\$215,545.	\$300,000.
	<b>Total</b>	\$515,545.	
<b>FY2005</b>		\$201,895	\$315,000.
	<b>Total</b>	\$516,895.	
<b>FY2006</b>		\$187,326.25	\$330,000.
	<b>Total</b>	\$517,326.25	
<b>FY2007</b>		\$171,651.25	\$350,000.
	<b>Total</b>	\$521,651.25	
<b>FY2008</b>		\$154,588.75	\$365,000.
	<b>Total</b>	\$519,588.75	
<b>FY2009</b>		\$136,338.75	\$385,000.
	<b>Total</b>	\$521,338.75	
<b>FY2010</b>		\$117,088.75	\$410,000.
	<b>Total</b>	\$527,088.75	
<b>FY2011</b>		\$96,178.75	\$430,000.
	<b>Total</b>	\$526,178.75	
<b>FY2012</b>		\$74,141.25	\$455,000.
	<b>Total</b>	\$529,141.25	
<b>FY2013</b>		\$50,481.25	\$480,000.
	<b>Total</b>	\$530,481.25	
<b>FY2014</b>		\$25,881.25	\$505,000.
	<b>Total</b>	\$530,881.25	

